

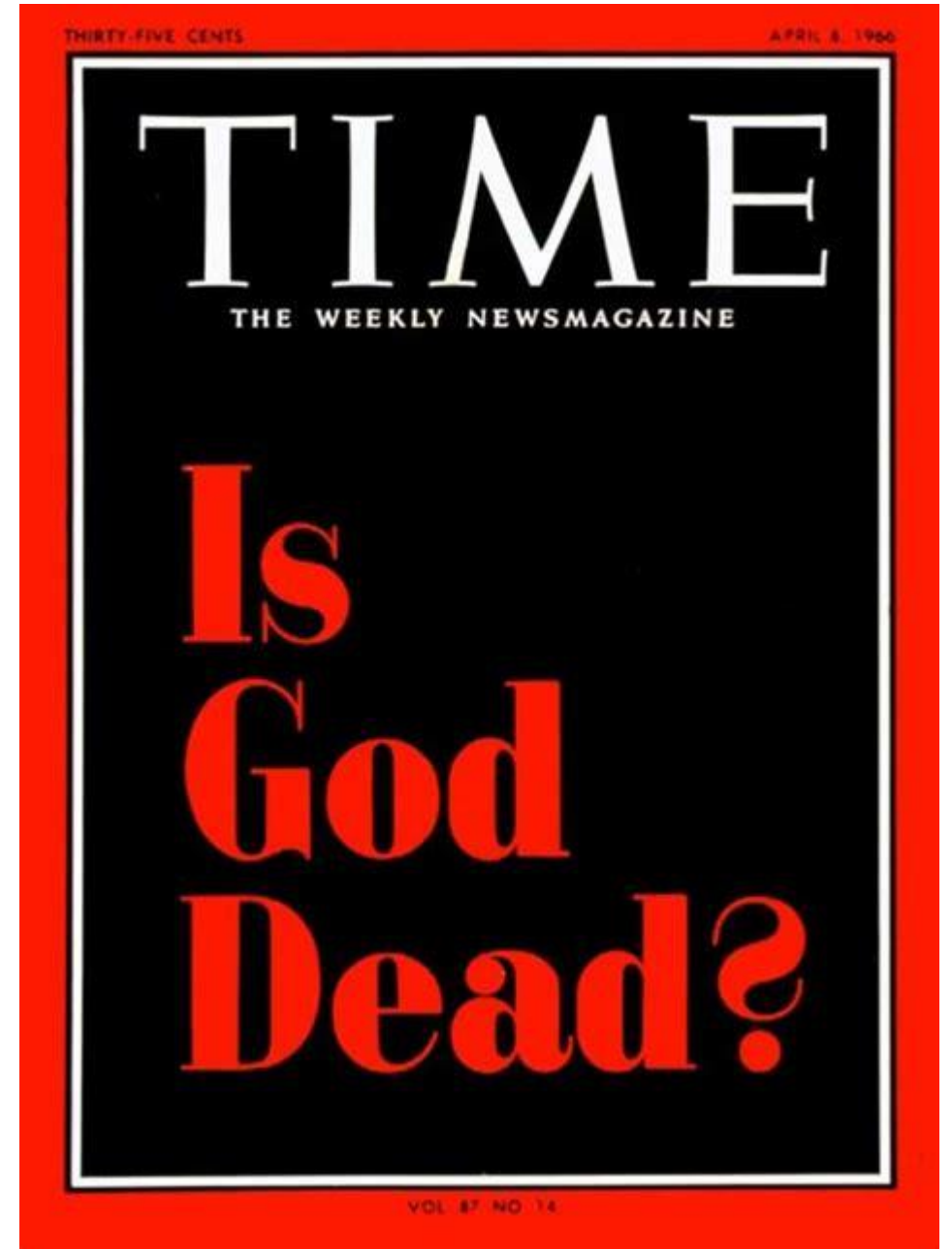
# C.S. Lewis on Science

“...we must be very cautious of snatching at any scientific theory which, for the moment, seems to be in our favour. We may **mention** such things; but we must mention them lightly and without claiming that they are more than **‘interesting’**. Sentences beginning ‘Science has now proved’ should be avoided. If we try to base our apologetics on some recent development in science, we shall usually find that just as we have put the finishing touches to our argument science has changed its mind and quietly withdrawn the theory we have been using as our foundation stone.”

From a paper delivered at ‘Carmarthen Conference for Youth Leaders and Junior Clergy’ of the Church in Wales at Carmarthen, Easter 1945

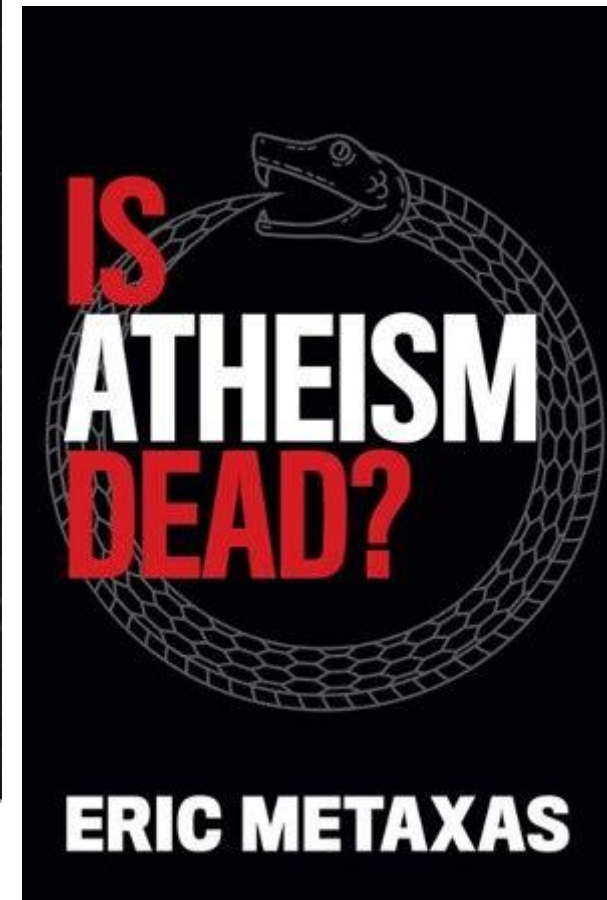
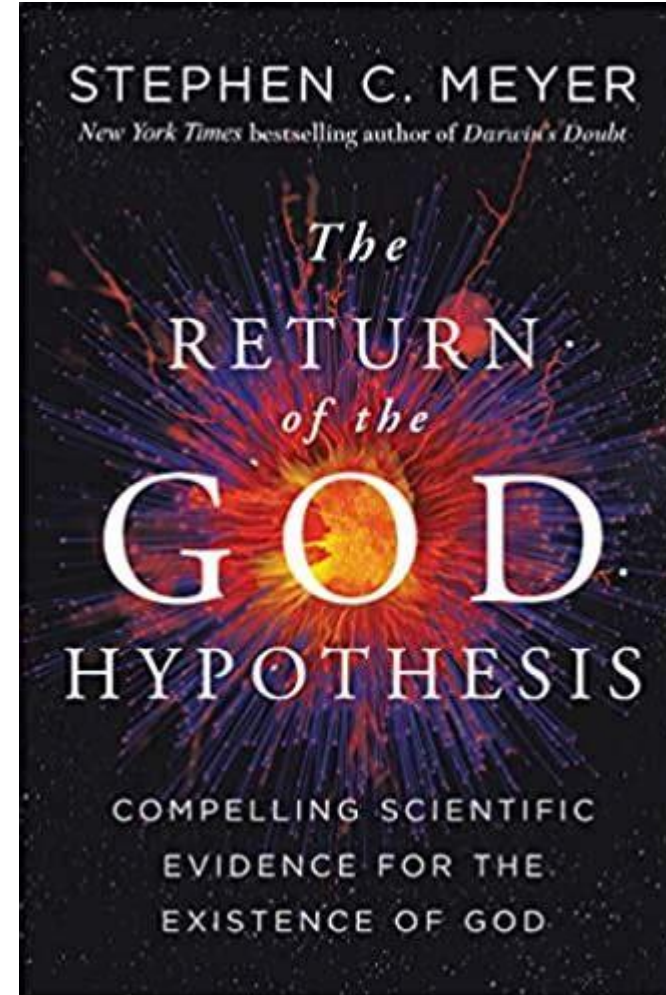
The weight of scientific evidence since 1966 points in one direction....

...and it's NOT in the direction that TIME Magazine thought it would point.



# Return of the God Hypothesis

- The Big Bang Theory
  - The universe had a beginning
- The “Goldilocks” Universe
  - The properties of the universe are exquisitely fine tuned to support life
- The DNA Enigma
  - The digital information encoded within cells is incredibly complex
- Socrates in the City
  - <https://socratesinthecity.com/>
  - <https://www.youtube.com/@socratesinthecity>



# The Information Stored in DNA

- Four nucleotide bases
  - Adenine, Thymine, Guanine, and Cytosine (A, T, G, and C)
- *Sequence Hypothesis – Crick 1958*
  - Nucleotide bases function just as **letters in an alphabet**
  - Specific sequences of bases provide assembly instructions for building proteins that cells need to survive
  - Some sequences are meaningful while others are gibberish
  - Hypothesis later confirmed via experimentation

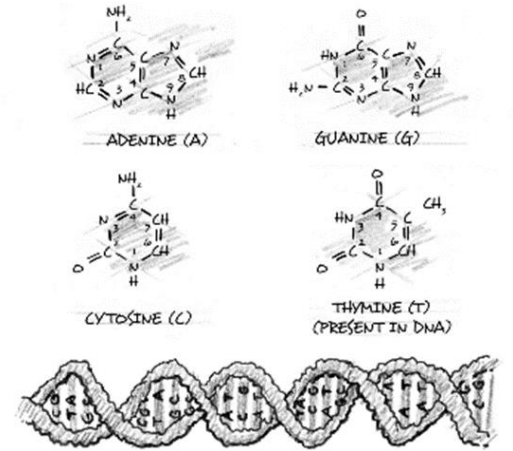
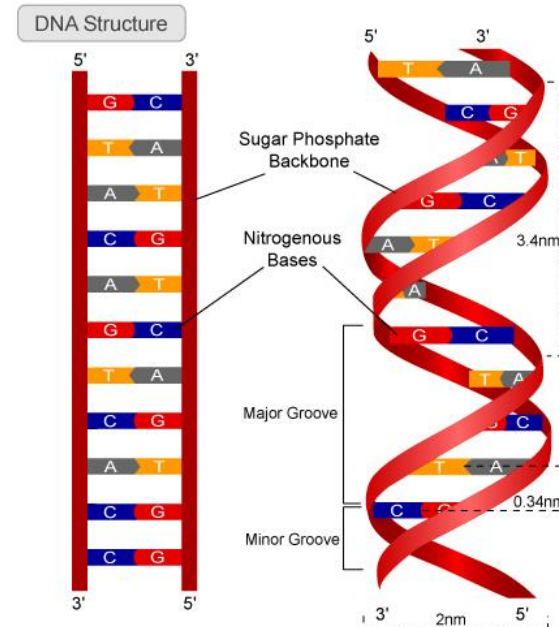
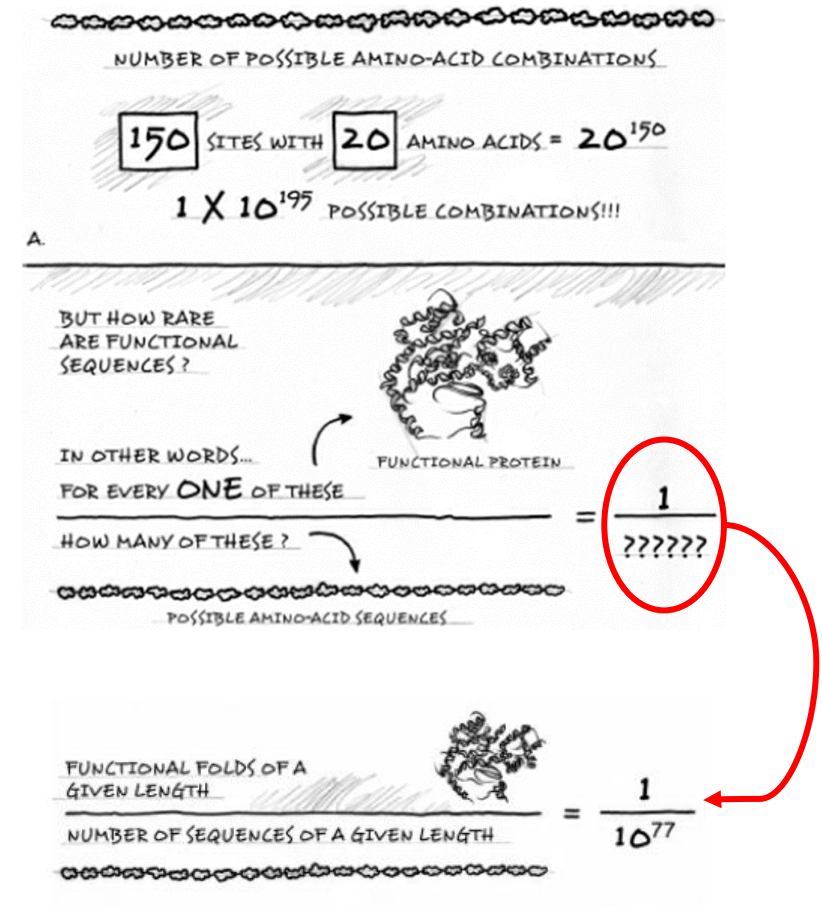


FIGURE 9.2

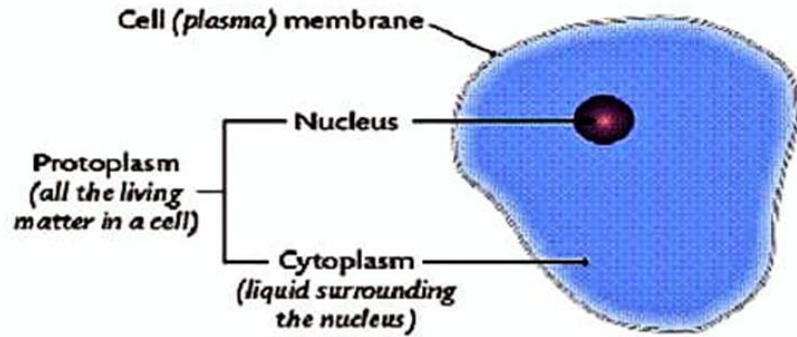


# So, how many functional combinations are there ?

- Douglas Axe
  - Chemical Engineering (Cal Tech)
    - University of Cambridge, MRC Centre (post doctoral)
  - Built upon the work of Sauer and estimated the ratio as 1 in  $10^{77}$  combinations are functional
- Saying that something has a probability of **“1 out of  $10^{77}$ ”** is **indistinguishable** from saying that it has a probability of **“zero”**
- Creating new organisms by random mutations over time has the same probability as one million monkeys creating Shakespeare - **zero**.

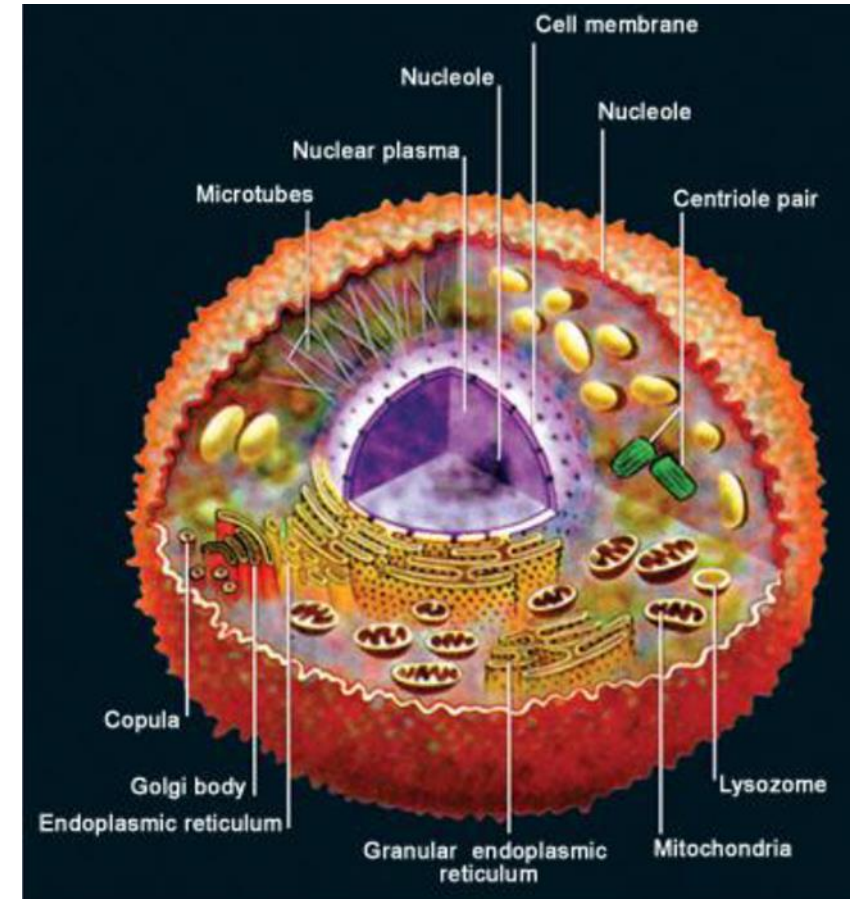


# The Single Cell – Then and Now



"Although the tiniest bacterial cells are incredibly small, weighing less than  $10^{-12}$  grams, each is in effect a veritable microminiaturized factory containing thousands of exquisitely designed pieces of intricate molecular machinery, made up altogether of one hundred thousand million atoms, far more complicated than any machine built by man and absolutely without parallel in the non-living world."

– Dr. Michael Denton

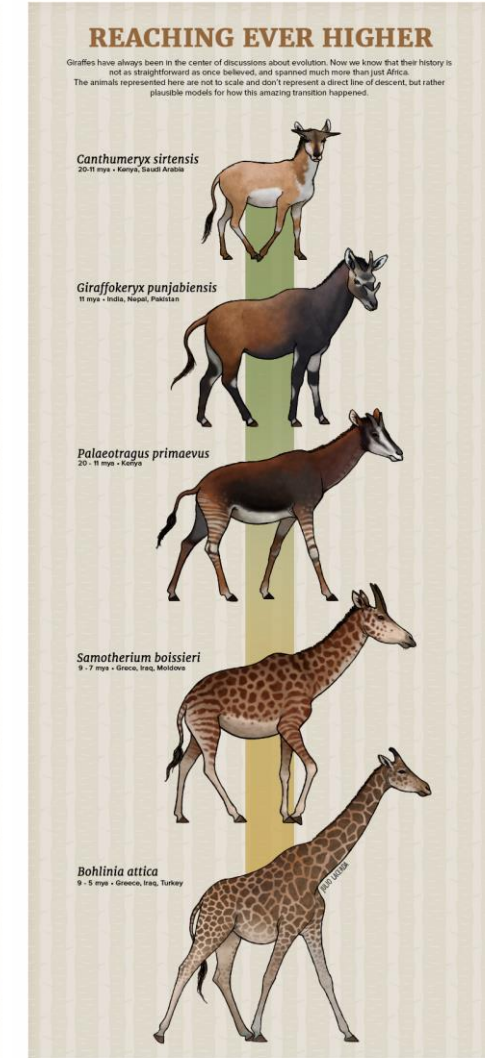
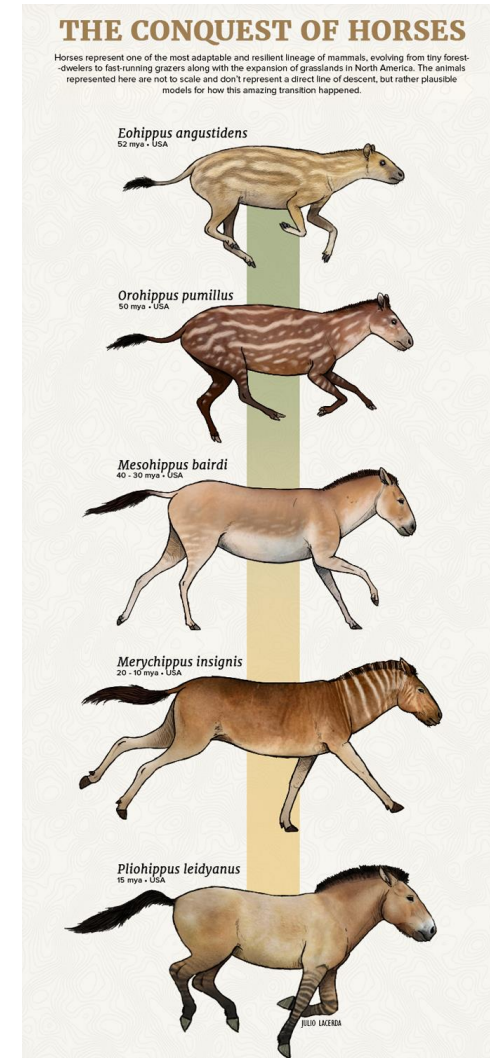
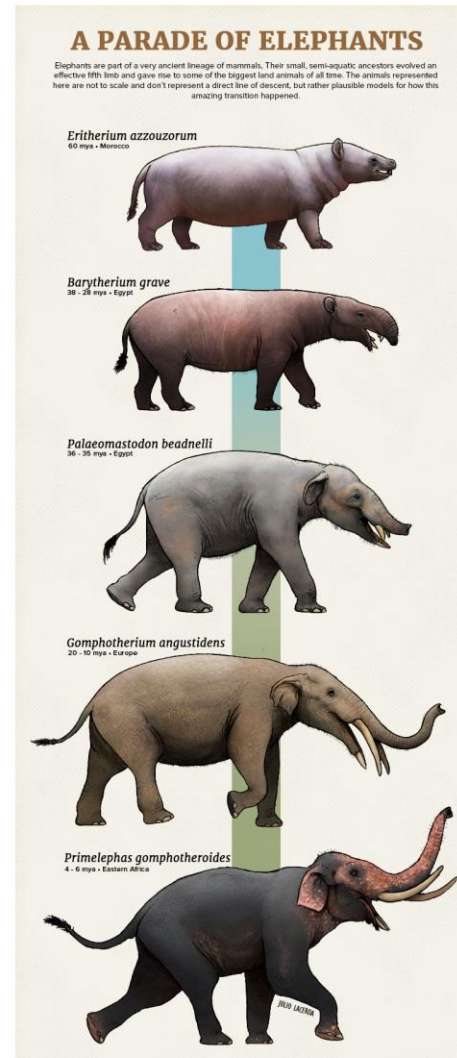


# The “Just So” Stories of Evolution

- Numerous, successive, slight modifications
- Take place over millions of years
- Based on
  - Fossil records – to the extent that they exist
  - External anatomical similarities
- Darwin used them and they are still used today to explain evolution

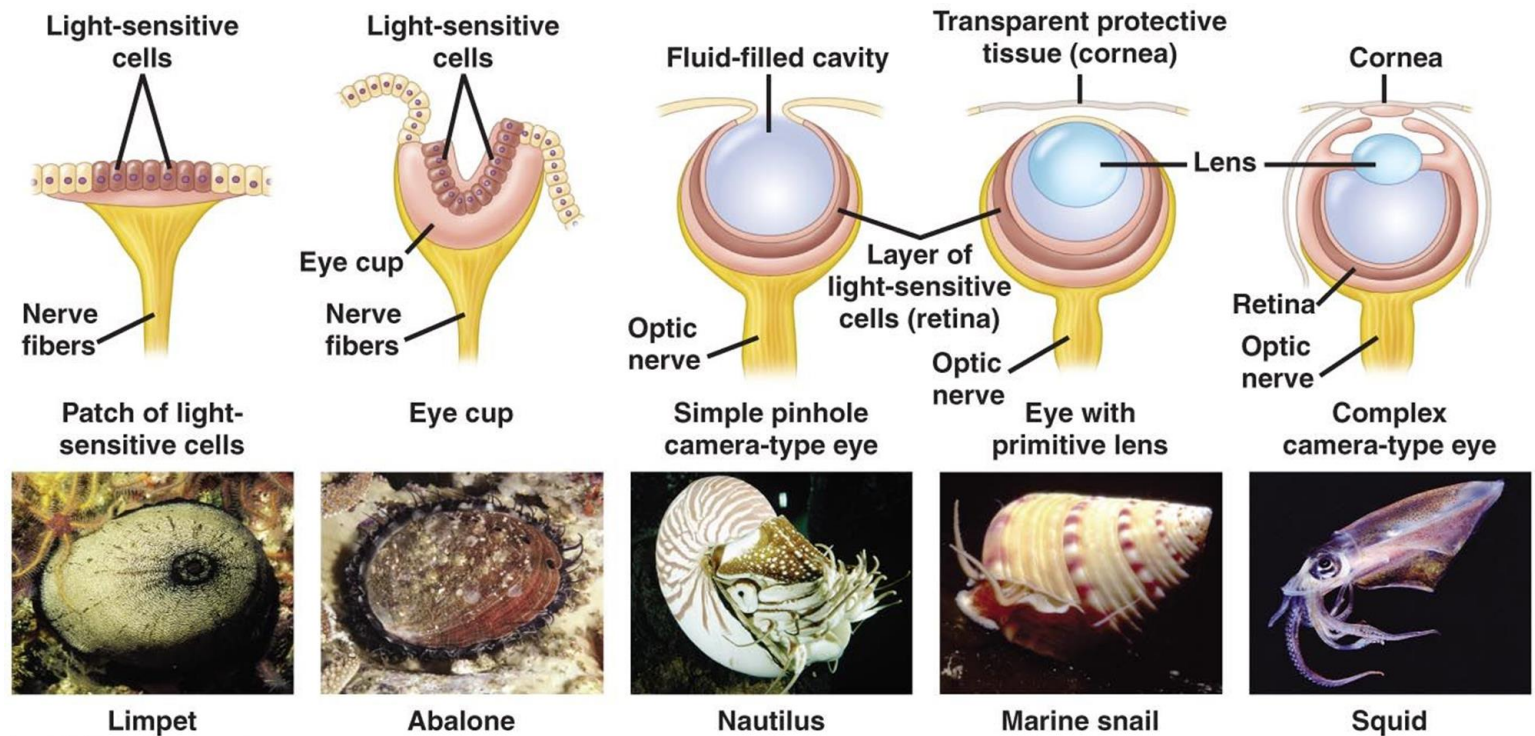
*“If it could be demonstrated that any complex organ existed which could not possibly have been formed by numerous, successive, slight modifications, my theory would absolutely break down.”*

- Charles Darwin



# The “Just So” story for Vision

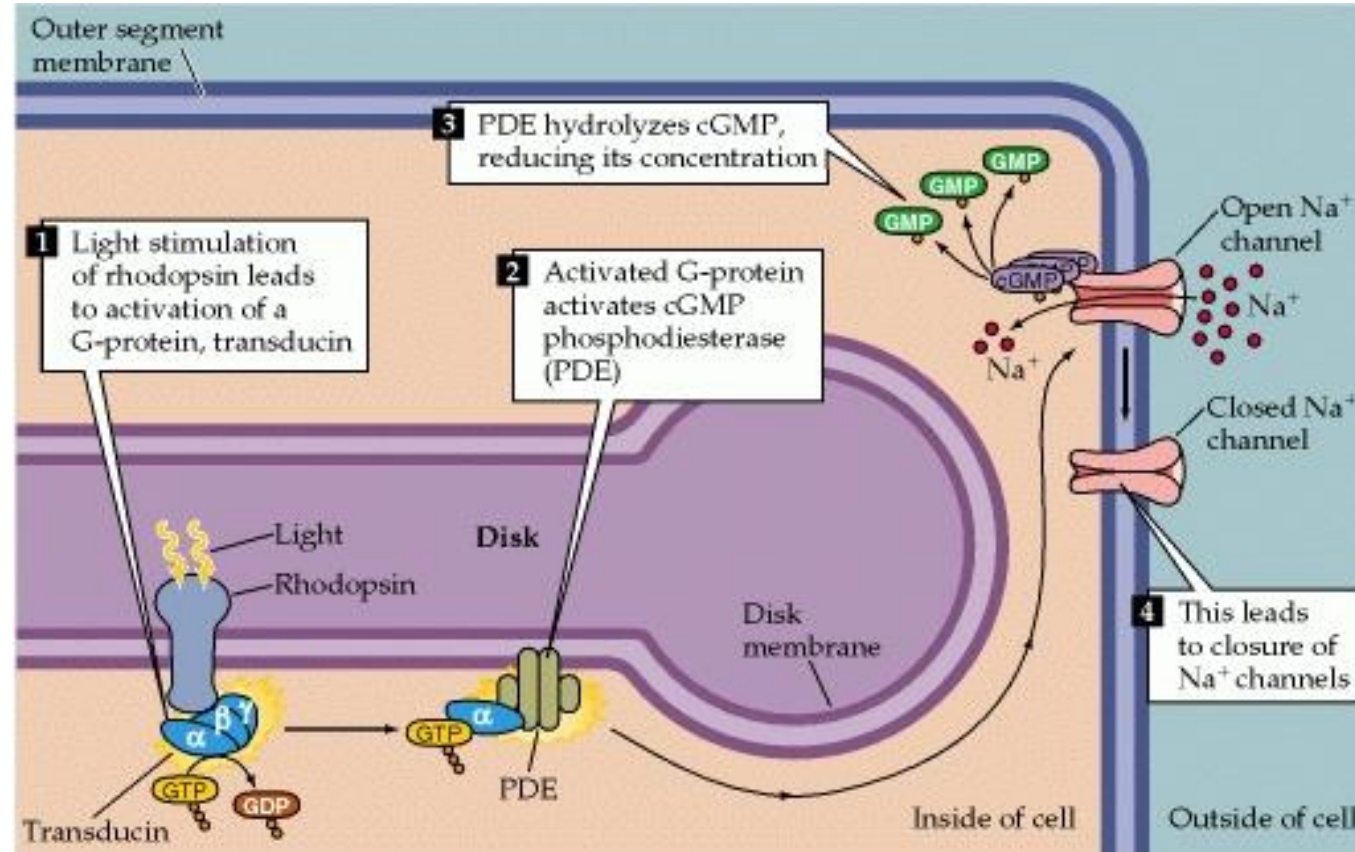
- Some tiny creatures have a “spot” of light-sensitive cells
- Some have the light-sensing cells located in a depressed region
- Some have a crude lens in the depressed region
- Some have improved the lens as they continued to evolve





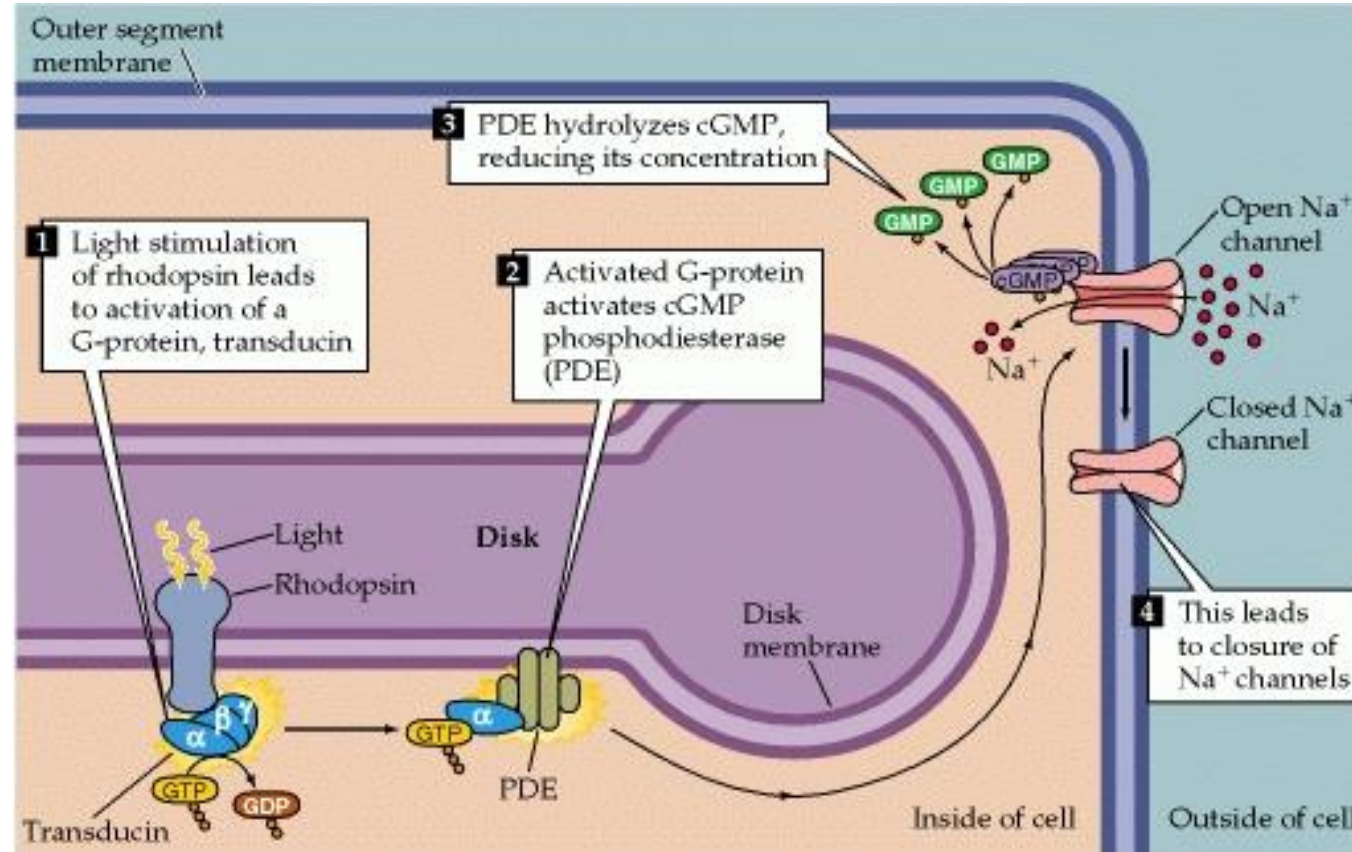
# The Biochemical story for Vision

- A photon is absorbed by and activates the (inactive) photoreceptor protein rhodopsin, leading to activation of G-protein transducin
- Activated transducin activates cGMP phosphodiesterase (PDE)
- PDE hydrolyzes cGMP, reducing its concentration
- Reduced cGMP concentration leads to the closure of the channel that allows  $\text{Na}^+$  to flow



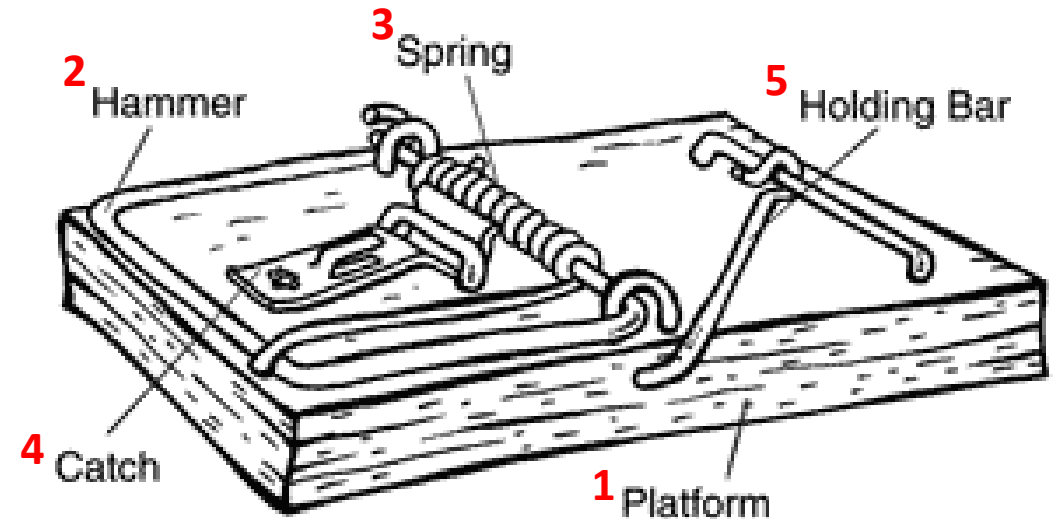
# The Biochemical story for Vision

- After the flow of  $\text{Na}^+$  is stopped, the cell becomes hyperpolarized
- As a result, an electric signal is sent down the optic nerve to the brain which interprets the signal as “vision”
- All followed by an equally complicated reverse set of chemical reactions which re-set the rhodopsin to its initial inactive state, ready for the next photon
- All happens in “picoseconds” ( $10^{-12}$  seconds or .000000000001 seconds)



# Irreducible Complexity

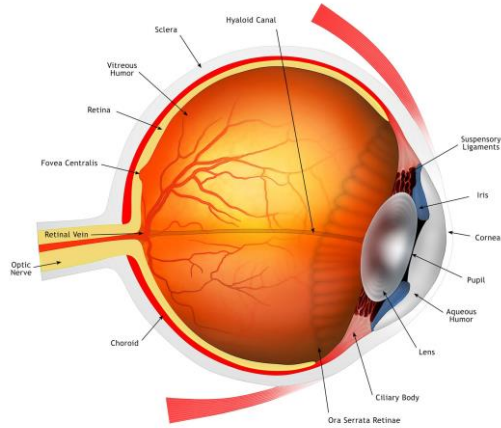
1. Flat wooden platform to act as a base
2. Metal hammer, which does the actual job of crushing the little mouse
3. Spring with extended ends to press against the platform and the hammer when the trap is charged
4. Sensitive catch that releases when slight pressure is applied
5. Metal bar that connects to the catch and holds the hammer back when the trap is charged



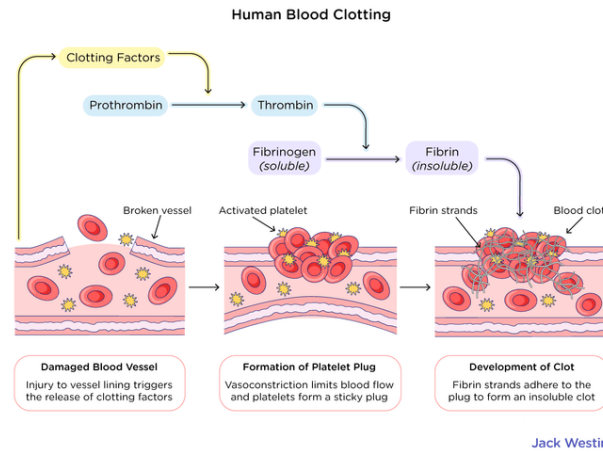
Which part could be missing, but the mousetrap would still function?

How does a mousetrap “evolve” one piece at a time?

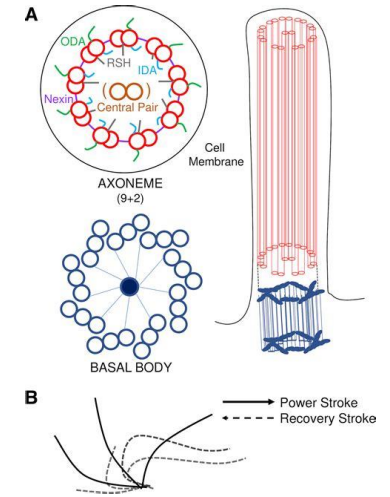
# Examples



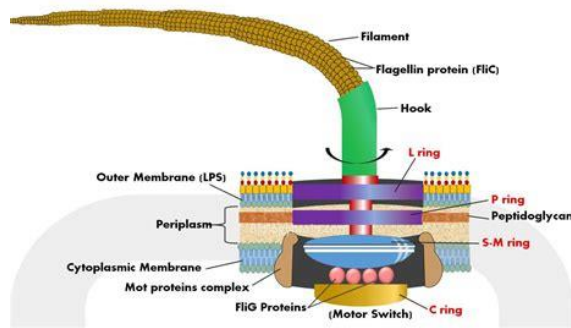
The Eye & Vision



Blood Clotting Cascade



Cilium Motion

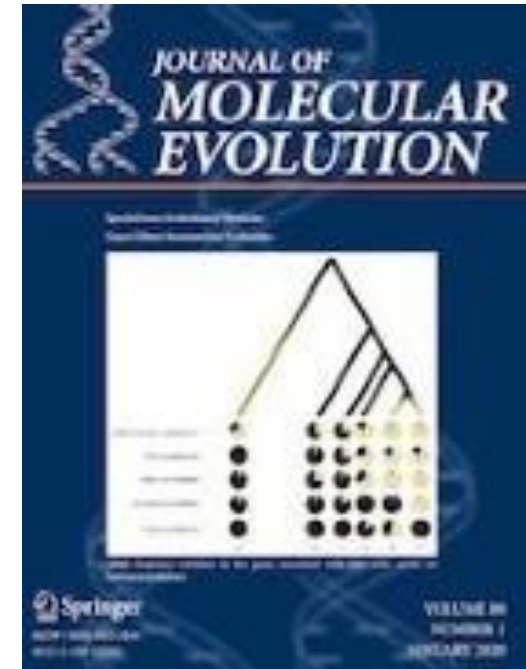
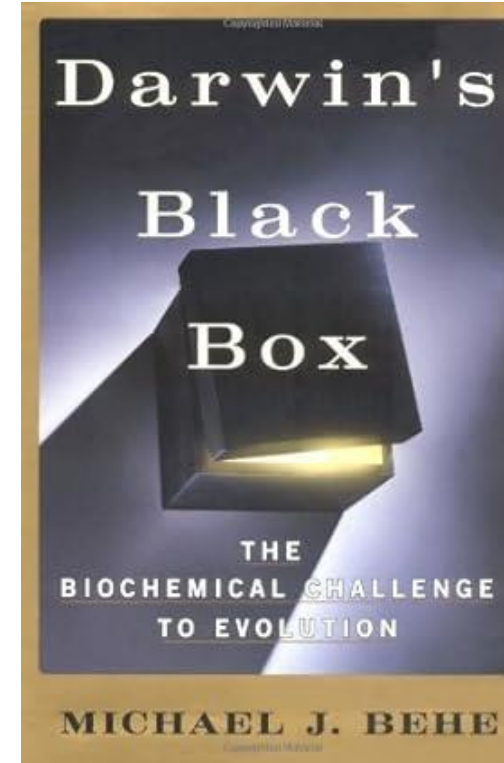


Flagella

- If the probability of finding a **single functional sequence** by random mutation is unimaginably small ( $1 \times 10^{77}$ )
- Then the probability of finding **multiple, simultaneous functional sequences** by random mutation is even smaller:  
 $(1 \times 10^{77}) \times (1 \times 10^{77}) \times (1 \times 10^{77}) \times (1 \times 10^{77}) \times \dots$

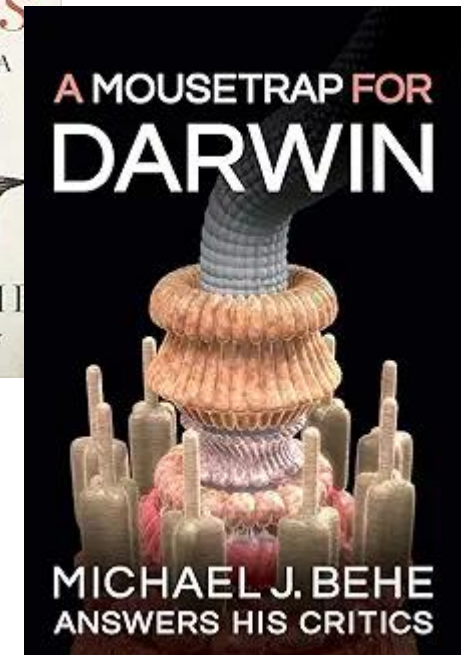
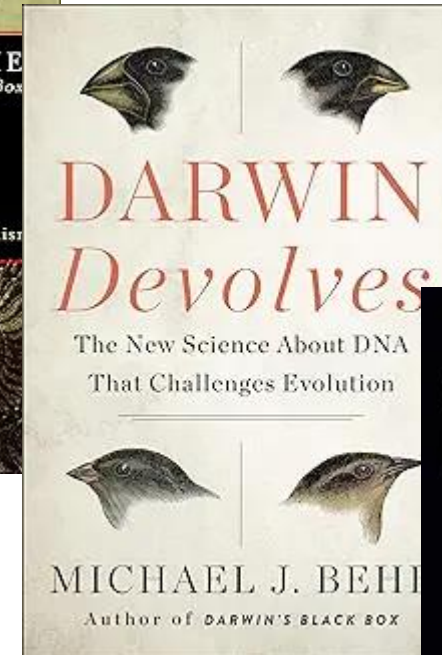
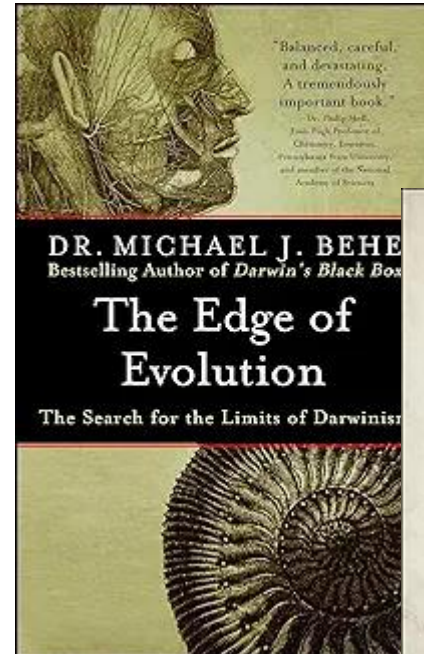
Seems important – must be a ton of research on it, right ?

- ***Darwin's Black Box***
  - Michael Behe - 1996
- ***Journal of Molecular Evolution***
  - Began publication in 1971
  - 2000+ papers from 1971 through 1996
  - Zero papers from 1971 through 1996 on how complex biochemical systems could evolve



# Michael Behe got their attention

- ***The Edge of Evolution***
  - While evolution can produce change within a species, there is a limit beyond which it cannot create change
- ***Darwin Devolves***
  - Mutation and Natural Selection are largely a degrading force
- ***A Mousetrap for Darwin***
  - Answering his critics



# Monkeys and Mousetraps are not the end of it

- Abiogenesis

- Life from non-life
- Miller-Urey experiment 1952
- Dr. James Tour



- The “Great Darwinian Paradox”

- “Heidelberg Screen” – Nobel Prize 1995
- Genes that **are** variable only affect minor form & function
- Genes that govern major changes either **do not vary or are fatal** if they do vary

- The Cambrian Explosion

- Massive number of new body plans appear in a short length of time in the fossil record
- Could not have happened by Darwinian mechanism

- The Royal Society – London 2016

- World’s oldest scientific body
- “*The Explanatory Deficits of neo-Darwinism*”
  - Neo-Darwinism **cannot explain** what caused new forms of life to arise



# C.S. Lewis on Science (again)

“...Science works by experiments. It watches how things behave. Every scientific statement in the long run, however complicated it looks, really means something like, ‘I pointed the telescope to such and such a part of the sky at 2:20 a.m. on January 15th and saw so and-so,’ [...] Do not think I am saying anything against science: I am only saying what its job is [....] But **why** anything comes to be there at all, and **whether** there is anything behind the things science observes – something of a different kind – this is not a scientific question.”

Mere Christianity. HarperOne, 2001. p. 22